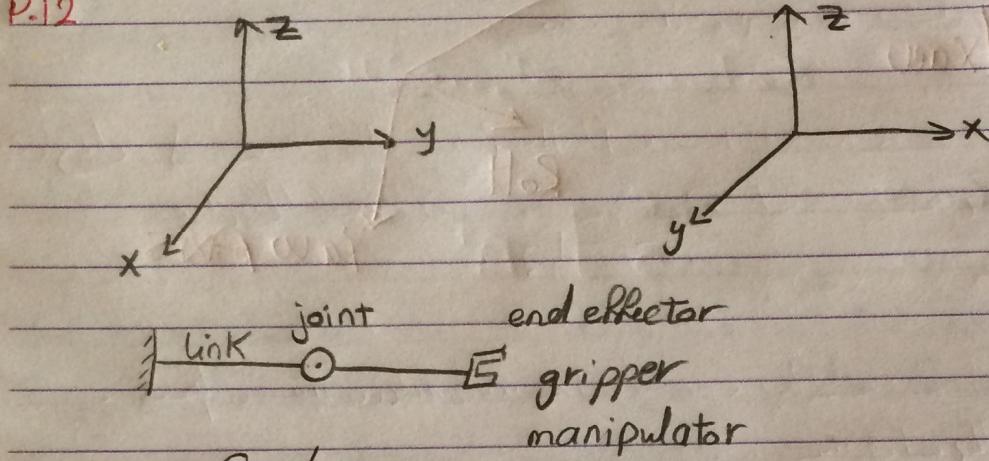


DATE: 22-2-2017

SUBJECT: Robotics

## Social Impact

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## Degree of Freedom (DOF)

1. one degree of freedom  $x, y, z$  .  $\sqrt{x^2 + y^2 + z^2}$  .  $\sqrt{1 + 1 + 1}$

2. Two " "  $x, y \neq x, z$

3. Three " "  $x, y, z$

• Translation - linear - prismatic  $\rightarrow P$

• Rotation - revolution.  $\rightarrow R$

S.14

$2P3R \rightarrow$  2 prismatic 3 revolution

$3PR \rightarrow$  3 prismatic, 1 revolution

$2PR \rightarrow$  cylinder 2 prismatic and 1 revolution

Components

Arms.

Joints.

Sensors.

Control (S/W)

Humanoid Robot

→ Man → Humanoid

DATE: \_\_\_\_\_

SUBJECT: \_\_\_\_\_

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أجزاء جسم

$\begin{bmatrix} x \\ y \\ z \end{bmatrix}$   
 $\begin{bmatrix} \text{roll} \\ \text{pitch} \\ \text{yaw} \end{bmatrix}$

